Experimental & Behavioral Economics

Economics 612, Fall 2022
TR 2:30pm-3:45pm, HBB 132

Professor:
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Office Hours: Tuesdays 4-5pm, Wednesdays 2-3pm, and by appointment.

Course Description (from the Graduate Catalog): Design of economic experiments and the analysis of experimental data. "Paradoxical" findings and behavioral economic theories. Comparison of traditional and behavioral models.

Prerequisites: Enrollment in a PhD program, which can be outside of economics. Although not essential to understanding the experimental method in economics, graduate coursework in microeconomic theory and econometrics will be beneficial for fully comprehending journal articles we will read in this course. I will work with graduate students outside of economics, and provide supplementary material as needed to enhance their learning experience.

Learning Objectives: The main purpose of the course is to teach you to experimental methods, broadly defined. We will also survey some of the (vast) literature in experimental and behavioral economics. This will reveal some fertile areas of research. You will participate or otherwise be exposed to a number of common experimental games and elicitation methods. I hope that the research proposal you develop in this course will become a chapter in your dissertation or a publication.

By the end of the course, you will be able to: (1) understand and apply behavioral theories to empirical applications; (2) develop an experimental design to address a research question you are interested in; (3) conduct a power analysis; (4) use z-Tree to program a computerized experiment; (5) critically assess experimental and behavioral economics research; and (6) identify logical extensions to existing experiments.

Evaluative Criteria:
The course grade will be based on a research proposal (50%), research methods assignments (30%), and readings-based assignments and participation (20%). There are no exams.

<u>Research Proposal</u>: The standard proposal will include all facets of an experimental research paper, with the exception of data collection and results. This includes a clear identification of a research topic, a literature review, a fully developed experimental design (treatments, parameters, sample sizes, etc.), testable hypotheses, and discussion of how data generated from the design would be analyzed.

I will consider a number of alternatives to the standard proposal. This includes: (1) papers that analyze existing experimental data to gain new insight, for example through the use of new econometric techniques or meta-analysis; (2) papers that analyze existing experimental or non-experimental data to test behavioral theories; and (3) papers that develop new theory to better explain results from prior

experimental or non-experimental studies. For any of these alternatives, a complete paper is expected (e.g., a statistical analysis and results; propositions and proofs), but I can be flexible depending on the scope of the project.

You are encouraged to discuss research ideas with your classmates as well as faculty members. Several proposals from prior offerings of this course have led to co-authored, peer-reviewed publications. Even if this is your end goal, others should only play an "advisory" role in this assignment – i.e., the paper or proposal written from this class needs to be written by you and largely be the result of your hard work.

The proposal/paper grade will be broken down into a (1) research sketch (10%); (2) proposal presentation (20%); and (3) written proposal (70%). The research sketch is due on October 14, and these will be discussed on October 18. Proposal presentations will take place on November 17 and 22. The written proposal is due on Tuesday, December 13.

The Department of Economics has money available for funding experiments, and provides grants up to $4000. Details on the application process are provided in the economics graduate programs handbook.

With permission, students can use this project to partially fulfill requirements of a different course, or build upon a project started through prior coursework. In either case, please talk to me in advance about this, so that we can mutually agree on reasonable evaluation criteria.

Research Methods Assignments: There will be five assignments related to research methods. These will cover programming an experiment in z-Tree, experimental design, theory and behavior, power analysis, and data analysis.

Readings-Based Assignments and Participation: During most weeks, we will discuss one or two research papers in detail. These are designated as "discussion articles". There will be five written assignments related to readings, which will make up half of your grade in this category.

The other half of your grade in this category will be determined by your participation, e.g., is there evidence that you have read the materials, do you actively engage in discussion, etc. As part of the learning process, I plan to have each of you help run either a lab or online experiment. This will also count towards participation.

Book (Required):
Jacquemet, Nicolas and Olivier L'Haridon. 2018. *Experimental Economics: Method and Applications*. Cambridge, UK: Cambridge University Press. DOI: 10.1017/9781107446786.

Other Books (Suggested Reading):
Kagel, John H., and Alvin E. Roth (Eds.). 2016. *The Handbook of Experimental Economics*, vol. 2. Princeton, NJ: Princeton University Press. Individual chapters of this book, in unpublished form, can currently be downloaded from John Kagel's website: http://www.econ.ohio-state.edu/kagel/. (ten chapters that each survey a particular experimental literature, e.g. auctions)

Dhami, Sanjit. 2017. *The Foundations of Behavioral Economic Analysis*. Oxford, UK: Oxford University Press. ISBN: 978 0 19871 553 5. (A very rigorous, advanced treatment of behavioral theory)

Holt, Charles A. 2019. *Markets, Games, & Strategic Behavior*, second edition. Princeton, NJ: Princeton University Press. ISBN-13: 9780691179247. (Undergraduate experimental economics text)

Tomer, John F. 2017. *Advanced Introduction to Behavioral Economics*. Cheltenham, UK: Edward Elgar Publishing. ISBN-13: 9781784719937. (Casual intro to behavioral economics)

Bellemare, Marc F. 2022. Doing Economics: What You Should Have Learned in Grad School - But Didn't. Cambridge, MA: The MIT Press. ISBN-13: 9780262543552. (Good guidance on how to write papers, present papers, and navigate the peer review process)

Students with Disabilities: The University of Tennessee, Knoxville, is committed to providing an inclusive learning environment for all students. If you anticipate or experience a barrier in this course due to a chronic health condition, a learning, hearing, neurological, mental health, vision, physical, or other kind of disability, or a temporary injury, you are encouraged to contact Student Disability Services (SDS) at 865-974-6087 or sds@utk.edu. An SDS Coordinator will meet with you to develop a plan to ensure you have equitable access to this course. If you are already registered with SDS, please contact your instructor to discuss implementing accommodations included in your course access letter.

The University of Tennessee, Knoxville, provides reasonable accommodations for individual students with disabilities through its office of Student Disability Services. The university is also committed to making information and materials accessible, when possible. Resources and assistance to support these efforts can be found at http://accessibility.utk.edu/.

Academic Integrity: Each student is responsible for their personal integrity in academic life and for adhering to UT's Honor Statement. The Honor Statement reads: "An essential feature of the University of Tennessee, Knoxville is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the university, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity."

Students are strongly encouraged to discuss course readings, lecture material, and research ideas with other students and faculty. However, with the exception of possible collaboration on the research proposal, students are expected unless noted otherwise to complete independently all evaluated work. I reserve the right to take appropriate actions, as described in the University Graduate Catalog (under Honor Statement), in the event of suspected cheating or plagiarism.

University Civility Statement: Civility is genuine respect and regard for others: politeness, consideration, tact, good manners, graciousness, cordiality, affability, amiability and courteousness. Civility enhances academic freedom and integrity, and is a prerequisite to the free exchange of ideas and knowledge in the learning community. Our community consists of students, faculty, staff, alumni, and campus visitors. Community members affect each other's well-being and have a shared interest in creating and sustaining an environment where all community members and their points of view are valued and respected. Affirming the value of each member of the university community, the campus asks that all its members adhere to the principles of civility and community adopted by the campus: http://civility.utk.edu/.

Your Role in Improving the Course through Assessment: At UT, it is our collective responsibility to improve the state of teaching and learning. During the semester you may be requested to assess

aspects of this course, either during class or at the completion of the class, and through the TNVoice course evaluation. Please take the few moments needed to respond to these requests as they are used by instructors, department heads, deans and others to improve the quality of your UT learning experience.

Copyright Policy: The instructor of this class owns the copyright to the syllabus, handouts, assignments, quizzes, and exams associated with the class. All presentations developed by the instructor, as well as the instructor's lectures, are also protected by copyright, whether these presentations and lectures are delivered live in-class, shared through Zoom or other videoconference platforms, or uploaded to Canvas or similar sites.

Sharing any of this material without the written permission of the instructor is a violation of copyright law, and is therefore also a violation of the University's policy on acceptable use of information technology resources (UT policy number IT0110). That policy states that students will not commit copyright infringement, "including file sharing of video, audio, or data without permission from the copyright owner", and that file sharing is a violation of the university's student code of conduct. I will report all such violations to the Office of Student Conduct and Community Standards.

COVID-19 Policy: CDC guidance recognizes the changing dynamics of living in a world with COVID-19. It rates COVID-19 community levels as low, medium, and high, with recommendations at each level about the use of masks and other precautions. At all levels of community spread, staying up-to-date with vaccination is the best way to protect yourself from serious illness and to limit the spread of COVID-19. Wearing a mask is always an option for any individual who chooses to do so, and the CDC recommends that those with high risk of severe illness talk with their health care providers. If you are sick, please stay in, avoid being around others as much as possible, and contact your health care provider for any symptoms that are worsening, moderate to severe, or concerning to you. For more information about vaccination or to self-report an illness and receive support, visit https://studenthealth.utk.edu/CommunityHealth. For more information about COVID-19, visit https://studenthealth.utk.edu/covid-19.

The Volunteer Creed reminds us that we bear the torch in order to give light to others. As Volunteers, we commit to caring for one another and for the members of the communities in which we live, work, and learn. During the pandemic, the University asks that we all demonstrate the Volunteer spirit by following these and other health guidelines and requirements.

Attendance Policy: You are expected to attend every class. Please inform me ahead of time if you anticipate being absent.

Participation: Class participation includes not only attendance, but providing thoughtful comments and questions. I encourage discussion that reflect creative and critical thinking, and appreciate alternative viewpoints. Please be respectful in dialogue with others, and do not engage in private conversations.

Policy on Make-up Work: Only in special circumstances (i.e. ones outside of your control) will you receive even partial credit for late assignments. If you foresee such circumstances, it is in your best interest to bring this to my attention prior to the due date.

Course Website: This course utilizes the Canvas online course management system (https://utk.instructure.com/). I will post handouts, assigned and optional readings, and grades. Important announcements will usually be made by email, so please check your email regularly.

Lecture Schedule:
The theme of each lecture is described below. Some meetings will also include a discussion of selected readings, and some will involve participating in experiments. This schedule is subject to change, and changes will be reflected in the lecture schedule posted on Canvas.

August 25 & 30: Uses of experiments, types of experiments, induced values, validity
September 1 & 6: Behavioral economics: Heuristics, prospect theory, social preferences, nudges
September 8: Guest lecture by Alecia Evans (post-doc, Baker Center for Public Policy)
September 13 & 15: Theory and behavior
September 20 & 22: Experimental design fundamentals
September 27: Power analysis, replicability, and publication bias
September 29: Guest lecture by Nate Neligh (Asst prof., Economics)
October 4: Power analysis, replicability, and publication bias (continued)
October 11 & 13: Data analysis
October 18: Research sketch presentations
October 20 & 25: Market trading institutions
October 27 & November 1: Programming in z-Tree
November 3 & 8: Preference elicitation methods
November 10 & 15: Experiment procedures: Lab experiments
November 17 & 22: Research proposal presentations
November 29: Writing and presenting research
December 1 & 6: Experiment procedures: Field, online, and survey experiments